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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,951	03/19/2004	Larry K. Boyd	30060.00	8090
22465	7590	11/16/2005	EXAMINER	
PITTS AND BRITTIAN P C P O BOX 51295 KNOXVILLE, TN 37950-1295			BASICHAS, ALFRED	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,951

Applicant(s)

BOYD ET AL.

Examiner

Alfred Basichas

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/19/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because various elements recited in the specification are not shown in the drawings (i.e. 12', 14', 18', etc.). Additionally, 12 (see at least fig. 7) is shown in the drawings with a lead line to the water jacket rather than the firebox, as described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 7-11, 13, 14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Lunde (4,401,101), which shows all of the claimed limitations. Lunde shows various embodiments of a solid fuel burning boiler including, among other things, a cylindrical firebox 28,87 having an opening in at least one end for receiving the solid fuel and having a main body portion defining a combustion chamber 29 with top, bottom and side firebox wall portions and a firebox end wall portion 34,95 (see at least figs. 3 and 5) opposite the open end 46,91; a vent member 51,91 for allowing combustion air to flow into said firebox main body portion; a control mechanism 56,93 in active engagement with said vent member for selectively regulating said flow of combustion air into said firebox main body portion (see at least col. 4, lines 30-32, and col. 6, lines 58-60); a stack member 57,97 defined by an elongated tubular member having a first end 58,94,99, a second end 59,102 and at least one inlet proximate said first end (see at least figs. 3 and 5), wherein said second end defines an outlet,

Art Unit: 3749

wherein said outlet is adapted to register with a flue for discharging gaseous combustion products from said firebox; and at least one conduit member 109,94 carried by said first tubular member (see at least fig. 5), said conduit member having an open end adapted to be in fluid communication with a combustion chamber and an oppositely disposed closed end proximate to and in fluid communication with said inlet, wherein said at least one conduit member defines a channel for communicating exhaust gases from said open end of said at least one conduit member to said inlet whereby a tortuous airflow path is defined from said open end of said at least one conduit member to said outlet (see at least fig. 5) and wherein said apparatus further comprises a heating chamber 17,77 surrounding at least a portion of said firebox, wherein said heating chamber is adapted for receiving a fluid 17 to be heated by said solid fuel (see at least col. 11, lines 22-25) burning apparatus.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3749

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4-6, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lunde (4,401,101), which discloses substantially all of the claimed limitations. Lunde does not specifically recite whether the conduit is rectangular, circular, or whether the elongated member is coaxial with the conduit. The claimed shape of the elongated member and conduit, as well as their spatial orientation (i.e. coaxial) is an obvious modification based on design choice, and depends on spatial considerations. In view of the absence of criticality for the particular shapes and orientation, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate it into the invention disclosed by Lunde, so as to provide for spatial considerations. Applicants' attention is directed to the cited prior art for examples of various shapes and spatial relationships of elongated members and conduits.

7. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lunde (4,401,101), which discloses substantially all of the claimed limitations. Lunde does not specifically recite two conduit members. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated two conduits into the invention disclosed by Lunde, since it has been held that to provide duplicate parts for multiplied effect is not the type of innovation for which a patent is granted. *St. Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8, 11.

Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references disclose burners with many, if not all, of the claimed components. Nevertheless, in order to avoid overburdening the applicant with redundant rejections, these references were not applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Basichas whose telephone number is 571 272 4871. The examiner can normally be reached on Monday through Friday during regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571 272 4828. The fax phone

Art Unit: 3749

numbers for the organization where this application or proceeding is assigned are 703 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center telephone number is 571 272 3700.

November 6, 2005



Alfred Basichas
Primary Examiner